**AGENDA TITLE:** Adopt Resolution Authorizing the City Manager to Enter into a Six Month

Professional Services Agreement with Strategic Power Placements of Conifer, CO for Electric Superintendent Services and Administration by the Electric Utility

Director (\$67,500)

**MEETING DATE:** January 19,2010

PREPARED BY: **Electric Utility Director** 

RECOMMENDED ACTION: Adopt a resolution authorizing the City Manager to enter into a six

> month Professional Services Agreement with Strategic Power Placements of Conifer, CO for Electric Superintendent Services, and administration by the Electric Utility Director in an amount not to

exceed \$67,500.

**BACKGROUND INFORMATION:** The City Council approved a superintendent position in the

FY2010/11 Electric Utility Department (EUD) budget. To date EUD

has been unsuccessful in filling this position.

Staff has contacted various electric utility agencies to find a qualified candidate. The American Public Power Association was successful in recommending an individual qualified to perform Electric Superintendent duties through Mycoff, Fry and Prouse Management Services, LLC doing business as Strategic Power Placements (SPP) in Conifer, Colorado.

Staff recommends the City Council adopt a resolution authorizing the City Manager to approve the attached Professional Services Agreement with SPP for Electric Superintendent Services with administration by the Electric Utility Director for six months in an amount not to exceed \$67,500.

FISCAL IMPACT: No additional funding is required.

**FUNDING AVAILABLE:** Included in FY2010/11 EUD Budget Account No. 160650.7323.

Jordan Ayers

Deputy City Manager/Internal Services Director

Elizabeth A. Kirkley

Electric Utility Director

APPROVED:

Konradt Bartlam, City Manager

# PROFESSIONAL SERVICES A GREEMENT BETWEEN CITY OF LODI AND MYCOFF, FRY & PROUSE MANAGEMENT SERVICES, LLC

This PROFESSIONAL SERVICES AGREEMENT ("'Agreement'') of January 24,2011 between Lodi Electric Utility located at Lodi, California and Mycoff, Fry & Prouse Management Services, LLC doing business as Strategic Power Placements (SPP) with offices at 12935 US Highway 285, Conifer, CO 80433

WHEREAS Lodi Electric Utility is engaged in the generation, transmission, and/or distribution of electrical energy; and

WHEREEAS, SPP is qualified and capable of providing interim management consulting services;

NOW, THEREFORE, in consideration of the promises herein and for other good and valuable consideration, the parties agree as follows:

- 1. **Services to be provided** Lodi Electric Utility engages SPP to provide interim management consulting services and other services (hereinafter referred to as the "Services") as described in <u>Exhibit A</u>. Detailed procedures and practices to be followed while performing the Services, including completion acceptance, shall be as set forth in a project specific task order issued thereunder. SPP will perform the Services at the direction of and on behalf of Lodi Electric Utility.
- 2. **Independent Contractor:** SPP is an independent contractor and is not an employee of Lodi Electric Utility and shall not be entitled to any benefits or rights, including, but not limited to, sick leave, vacation leave, holiday pay, worker's compensation or other insurance benefits.
- 3. **Standard of Care:** SPP will perform Services under this Agreement with the degree of skill and diligence normally practiced in the energy industry. SPP shall comply with all Federal, State, County, City and other governing laws, rules and regulations as applicable to the performance of services under this Agreement including Lodi Electric Utility business practices or other ordinances including, but not limited to, equal opportunity practices, living wage ordmances, applicable business licenses, taxpayer protection acts (limiting gifts or campaign contributions), and assignment of antitrust causes of action.
- 4. **Payment:**Lodi Electric Utility agrees to pay SPP for services in accordance with the terms and schedule contained in <u>Exhibit B</u>. Each invoice shall state the basis for the amount invoiced, including services completed, units and costs, and any **work** performed. Lodi Electric Utility shall pay properly invoiced amounts not more than sixty (30) days after delivery of an invoice.
- 5. Changes/Amendments: This Agreement may not be changed except by written amendment signed by both Parties. Services not expressly set forth in Exhibit A are excluded. SPP shall promptly notify Lodl Electric Utility if changes to the Services affect the schedule, level of effort or payment to SPP. If SPP determines that changes should be made to <a href="Exhibit A">Exhibit B</a>, SPP will notify Lodi Electric Utility of such proposed changes in writing, including the effects on the schedule, level of effort and payment for such changes. Thereafter, SPP and Lodi Electric Utility shall agree in writing on which changes, if any, shall be included in an amendment to either <a href="Exhibit A">Exhibit A</a> or <a href="Exhibit B">Exhibit B</a>. If SPP is delayed in performing the Services by any act of war, force majeure or other circumstance beyond its control, SPP shall not be considered to be in default of the performance of its obligations under this agreement.

- 6. **Taxes:** Any and all taxes imposed on SPP's income, imposed or assessed by reason of this agreement or its performance, including but not limited to sales or use taxes, shall be paid by SPP. SPP shall be responsible for any taxes or penalties assessed by reason of any claims that SPP is an employee of Lodi Electric Utility, and Lodi Electric Utility and SPP specifically agree that SPP is not an employee or agent of Lodi Electric Utility.
- 7. **Indemnity:** To the extent permitted by law, SPP agrees to indemnify, defend and hold harmless Lodi Electric Utility directors, officers and employees from and against any and all loss, damage, claims or liability, including reasonable attorney's fees incurred by Lodi Electric Utility in connection with the provision of the Services to the extent arising out of SPP's negligence, willful misconduct or bad faith. To the extent permitted by law, Lodi Electric Utility agrees to indemnify, defend and hold harmless SPP its directors, officers and employees from and against any and all loss, damage, claims or liability, including reasonable attorney's fees incurred by SPP in connection with the provision of this Services to the extent arising out of Lodi Electric Utility negligence, willful misconduct or bad faith.
- 8. **Limitation of Liability:** To the extent permitted by law, the total liability of SPP to Lodi Electric Utility for any claims arising out of this Agreement, whether caused by negligence errors, omissions, strict liability, breach of contract or contribution, or indemnity claims based on third party claims, shall be limited to direct damages and shall not exceed one hundred and fifty thousand dollars (\$150,000) or the insurance limits required in Paragraph 9, whichever is greater; provided, however this limitation shall not apply to claims arising from or out of the gross negligence, willful misconduct or bad faith of SPP.

IN NO EVENT AND UNDER NO CIRCUMSTANCES SHALL SPP BE LIABLE TO LODI ELECTRIC UTILITY FOR ANY INTEREST, LOSS OF ANTICIPATED REVENUES, EARNINGS, PROFITS, INCREASED EXPENSES OF OPERATIONS, LOSS BY REASON OF SHUTDOWN OR NON-OPERATIONS DUE TO LATE COMPLETION OR FOR ANY CONSEQUENTIAL, PUNITIVE, INDIRECT OR SPECIAL DAMAGES.

Notwithstanding the forgoing, this damages waiver shall not apply to damages for payments made by Lodi Electric Utility to SPP under this Agreement and nothing in this Agreement shall preclude Lodi Electric Utility from recovering such payments in the event SPP fails to perform the Services provided for under the Agreement.

The warranties, obligations, liabilities and remedies of the parties, as provided herein, are exclusive and in lieu of any others available at law or in equity. To the fullest extent allowed by law, releases from, and limitations of, liability shall apply notwithstanding the breach of contract, tort including negligence, strict liability or other theory of legal liability of the party released or whose liability is limited.

9. **Insurance:** SPP shall, at its own cost and expense, procure and maintain during the entire term of this Agreement, public liability insurance and property damage insurance (issued by an insurance company admitted in the State of California to issue such insurance) naming Lodi Electric Utility as an additional insured against loss or liability caused by or connected with SPP's use of an automobile in the performance of this Agreement. The policy shall meet the insurance requirements for the City of Lodi attached as Exhibit C and incorporated herein.

Additionally, SPP shall, at its own cost and expense, secure and maintain during the entire term of this Agreement, a policy of workers' compensation insurance with statutory limits or provide a waiver certifying

that no employees and/or volunteers subject to the Labor Code provisions will be used in the performance of services under this Agreement.

This insurance shall not be cancelled, limited in scope or coverage or non-renewed until after thirty (30) days written notice has been given to Loch Electric Utility.

10. **Term and Termination:** The term of this Agreement shall be one year from the date of execution, at which time, it shall either terminate or be extended by written agreement between Lodi Electric Utility and SPP, unless sooner terminated in accordance with this section. Either Party may terminate this Agreement, without cause, upon thirty (30) days' written notice to the other Party. Lodi Electric Utility shall pay SPP for all services rendered to the date of termination plus reasonable expenses for winding down the services. Any payment, indemnity, and work product rights or obligations, shall survive the termination of this Agreement.

## 11. Use and Ownership of Work Products:

- (a) **Work** Product. As used in this Agreement, the term "**Work** Product" means any and all materials fixed in a tangible medium of expression, including software code, written procedures, written documents, abstracts and summaries thereof, or any portions or components of the foregoing created, written, developed, conceived, perfected or designed in connections with the Services provided under this Agreement.
- (b) Loch Electric Utility shall retain all rights, title and interest in and to the **Work** Product, including all intellectual property rights therein and any and all enhancements, improvements and derivative works thereof, and SPP obtains no right therein.
- (c) At all times, each party shall retain all of its rights in its drawing details, designs, specifications, databases, software, programs, copyrights, trade and service marks, patents, trade secrets, and any other proprietary property.
- 12. **Information Provided by Others:** Lodi Electric Utility shall provide to SPP in a timely manner any information needed to perform the services hereunder. SPP may rely on the accuracy of the information provided by Lodi Electric Utility and its representatives.
- 13. **Dispute Resolution:** SPP and Lodi Electric Utility shall attempt to resolve conflicts or disputes under this Agreement in a fair and reasonable manner and agree that if resolution cannot be made, to mediate the conflict with a professional mediator. If mediation does not settle any dispute or action which arises under this Agreement or which relates in any way to this Agreement or the subject matter of this Agreement, it shall be subject to arbitration under rules governing commercial arbitration as promulgated by the American Arbitration Association, arbitrability shall be subject to the Federal Arbitration Act and the locale of the arbitration shall be California.

#### 14. Miscellaneous:

- (a) This Agreement is binding upon and will inure to the benefit of the Lodi Electric Utility and SPP and their respective successors and assigns. Neither party may assign its rights or obligations hereunder without the prior written consent of the other Party; provided, however, that either Party may assign this Agreement to a successor of the Party's entire business relating to this Agreement.
- (b) If any term or provision of this Agreement is illegal, invalid, or unenforceable under any present or future law, then, in such event, it is the intention of the parties hereto that the remainder of this Agreement shall not be affected thereby, and it is also the intention of the parties to this Agreement that in lieu of each term or

provision of this Agreement that is illegal, invalid or unenforceable, there will be added, as a part of this Agreement, a legal, valid and enforceable term or provision as similar in content as possible to such illegal, invalid or unenforceable term. If any provision in the body of this Agreement conflicts with any provision in any exhibit or attachment hereto, the provision contained in the body of the Agreement shall control over any such other conflicting provision.

(c) This Agreement is entered into in California and shall be governed by, and construed in accordance with, the laws of the State of California.

## 15. Signature Clause:

IN WITNESS WHEREOF, each signatory hereto represents that he or she has been properly authorized to execute and deliver this Agreement on behalf of the Party for which he or she signs.

## **Lodi Electric Utility**

By:			
and;			

# **Strategic Power Placements**

By:
Carl A. Mycoff
Manager
Strategic Power Placements LLC
12935 US Highway 285
Conifer, CO 80433
(800) 525 9082

#### Exhibit A

#### SCOPE OF SERVICES

Between

Lodi Electric Utility and Strategic Power Placements ("SPP")

Pursuant to the terms and conditions of the Professional Services Agreement ("Agreement") executed and made effective as of January **24,2011** by and between Lodi Electric Utility and SPP, SPP will provide Maury J. Blalock for Interim Electric Superintendent Services to Lodi Electric Utility from January **24,2011** until July **24,2011** to work under the direction of Lodi Electric Utility.

#### **OVERVIEW**

Under general direction, assigns and supervises the activities of the electric systems for Lodi's Electric Utility Department. Performs a variety of professional office and field work relating to construction and maintenance of electric utility systems, substations, communication network, metering and control systems. Provides administrative direction and technical assistance and training to division staff, and does related work as required.

#### JOWLEDGE OF

Methods, materials, and tools used in construction, maintenance and repair of power substations, transformers, circuit breakers, surge arresters, battery systems, capacitor banks & associated controls, generator & appurtenances, protective relays and devices, SCADA systems, motor controllers, process control and instrumentation devices, metering, security & alarm systems and solid state and micro-processor systems;

Detailed analysis of power outages and protective device indications;

Instrumentation, specialized testing equipment and precision tools;

Power equipment diagnostic testing and interpretation of test results;

Effective grounding system, ground potential rise, synchronizing systems, load shedding & reclosing control systems, phase shifters, different HV/MV bus configurations, parallel system operations, power quality analysis, instrument transformers, three-phase & single-phase power systems;

Electrical and environmental codes, laws, and safety rules associated with power substation and other high and medium voltage work;

Reliability standards applicable to electric utility systems;

Principles of supervision, training, and performance evaluation;

Safe work practices and procedures;

Record keeping and reporting procedures.

#### **ABILITY TO**

Plan, organize and supervise the day-to-day activities of the Substation Maintenance Section and the Metering Section;

Work independently;

Supervise, train and evaluate subordinates;

Maintain work and operational records and prepare technical reports;

Use tools, equipment, and software employed in the course of work in the Substations and the office;

Prepare clear, concise and complete technical documents, reports and correspondence;

Communicate clearly and concisely.

Work safely in a 60kV environment;

Participate with various City departments and outside agencies in the planning and design of electric facilities;

Establish and maintain effective working relationships with those contacted in the course of work.

## GUISHIN HARACTERIS'

This is a supervisory level position directly responsible for the activities of the Substation Maintenance Section and the Metering Section. The Electric Superintendent is distinguished from the Electrical Technician and the Metering Technician and Electricians in that the incumbent must possess a thorough technical and working knowledge of power substations, electric systems, protection systems, reliability compliance, communications, metering and control systems, their components, devices and functions including computer and computer-based SCADA, digital fault recorder, modem, telemetry, intelligent electronic devices (IED), fiber optics, remote terminal units, programmable logic controllers, multiplexers, digital substation technology, microprocessor-based test and process control equipment, system hardware, software and network components, network protocols and integration, single-phase and multi-phase configuration.

## SUPERVISION RECEIVED AND EXERCISED

Receives general direction from the Assistant Electric Utility Director or designee. Supervises Electrical Technician, Metering Electrician and others as assigned.

# **EXAMPLES OF DUTIES**

Duties may include, but are not limited to, the following:

Coordinates assignments with Electric Utility Department and other Departments' staff;

Directs, trains, evaluates, and, coordinates in the construction, maintenance, troubleshooting, repair and operation of power substations and meters;

Performs pre- and post-inspections of electrical construction and maintenance tasks;

Specifies special materials and equipment needed for all phases of substation and metering work within the city;

Reviews and comments on plans and specifications submitted by contractors and consultant engineer;

Participates in the design of electrical systems for power substations and municipal facilities;

Develops and maintains preventive maintenance programs and records;

Implements the hazardous materials handling, recordkeeping and coordination internally and with governing agencies;

Directs, trains, and evaluates technical staff in the maintenance, calibration, troubleshooting, and repair of power substation equipment, municipal electric facilities, SCADA systems, process control and instrumentation devices, metering and other computer and electronic-based systems;

Recommends & implements safety procedures, training and guidelines; acquires necessary protective gear, tools and devices to enhance personnel and equipment safety;

Interacts with customers when solving power quality and metering problems;

Participates in budget preparation; implements the Division's policies, procedures, and practices;

Performs the duties of Electrical Technician, as needed;

Performs other duties related to the safe, reliable operation of the department and the City including additional duties that enable the department and City to meet the diverse needs of its community.

## Exhibit B

## **COMPENSATION**

For the first *six* months of this Agreement, Maury J. Blalock will perform work under this Agreement at a monthly rate of \$11,250, which includes all SPP costs, as well as, travel and per diem expenses. After July 24, 2011Lodi Electric Utility can elect to enter into an amendment for another interim placement should Lodi Electric Utility determine it has additional personnel needs. In such an event, SPP will work to identify qualified interim candidates; any professional fees to be charged for additional interim placements will be negotiated.

#### **Exhibit C**

Insurance Reauirements for Consultant The Consultant shall take out and maintain during the life of this contract, insurance coverage as listed below. These insurance policies shall protect the Consultant and any subcontractor performing work covered by this contract from claims for damages for personal injury, including accidental death, as well as from claims for property damages, which may arise from Consultant's operations under this contract, whether such operations be by Consultant or by any subcontractor or by anyone directly or indirectly employed by either of them, and the amount of such insurance shall be as follows:

#### 1. COMPREHENSIVE GENERAL LIABILITY

\$2,000,000 Ea. Occurrence \$4,000,000 Aggregate

#### 2. COMPREHENSIVE AUTOMOBILE LIABILITY

Proof of coverage with limits not less than \$1,000,000 combined single limit and naming the CITY, by separate endorsement, as an additional insured.

#### 3. PROFESSIONAL ERRORS AND OMISSIONS

Not less than \$1,000,000 per Claim. Certificate of Insurance only required.

NOTE Contractor agrees and stipulates that any insurance coverage provided to the City of Lodi shall provide for a claims period following termination of coverage which is at least consistent with the claims period or statutes of limitations found in the California Tort Claims Act (California Government Code Section 810 et seq.).

A copy of the certificate of insurance with the following endorsements shall be furnished to the City:

#### (a) Additional Named Insured Endorsement

Such insurance as is afforded by this policy shall also apply to the City of Lodi, its elected and appointed Boards, Commissions, Officers, Agents, Employees, and Volunteers as additional named insureds.

(This endorsement shall be on a form furnished to the City and shall be included with Contractor's policies.)

#### (b) <u>Primary Insurance Endorsement</u>

Such insurance as is afforded by the endorsement for the Additional Insureds shall apply as primary insurance. Any other insurance maintained by the City of Lodi or its officers and employees shall be excess only and not contributing with the insurance afforded by this endorsement.

#### (c) Severability of Interest Clause

The term "insured" is used severally and not collectively, but the inclusion herein of more than one insured shall not operate to increase the limit of the company's liability.

#### (d) Notice of Cancellation or Change in Coverage Endorsement

This policy may not be canceled nor the coverage reduced by the company without 30 days' prior written notice of such cancellation or reduction in coverage to the **Risk** Manager, City of Lodi, 221 W. Pine St., Lodi, CA 95240.

Compensation Insurance The Contractor shall take out and maintain during the life of this contract, Worker's Compensation Insurance for all of Contractor's employees employed at the site of the project and, if any work is sublet, Contractor shall require the subcontractor similarly to provide Worker's Compensation Insurance for all of the latter's employees unless such employees are covered by the protection afforded by the Contractor. In case any class of employees engaged in hazardous work under this contract at the site of the project is not protected under the Worker's Compensation Statute, the Contractor shall provide and shall cause each subcontractor to provide insurance for the protection of said employees. This policy may not be canceled nor the coverage reduced by the company without 30 days' prior written notice of such cancellation or reduction in coverage to the Risk Manager, City of Lodi, 221 W. Pine St., Lodi, CA 95240.

#### RESOLUTION NO. 2011-11

A RESOLUTION OF THE LODI CITY COUNCIL AUTHORIZING
THE CITY MANAGER TO ENTER INTO A SIX-MONTH
PROFESSIONAL SERVICES AGREEMENT WITH STRATEGIC
POWER PLACEMENTS, OF CONIFER, CO, FOR ELECTRIC
SUPERINTENDENT SERVICES AND ADMINISTRATION BY
THE ELECTRIC UTILITY DIRECTOR

WHEREAS, the City Council approved a superintendent position in the Fiscal Year 2010/11 Electric Utility Department (EUD) budget; and

WHEREAS, to date, EUD has been unsuccessful in filling this position; and

WHEREAS, staff has contacted various electric utility agencies to find a qualified candidate; and

WHEREAS, the American Public Power Association was successful in recommending an individual qualified to perform Electric Superintendent duties through Mycoff, Fry and Prouse Management Services, LLC doing business as Strategic Power Placements (SPP) in Conifer, CO.

NOW, THEREFORE, BE IT RESOLVED that the Lodi City Council does hereby authorize the City Manager to enter into a six-month Professional Services Agreement with Strategic Power Placements, of Conifer, CO, for Electric Superintendent Services and administration by the Electric Utility Director in an amount not to exceed \$67,500.

Dated: January 19, 2011

I hereby certify that Resolution No. 2011-11 was passed and adopted by the City

Council of the City of Lodi in a regular meeting held January 19, 2011, by the following Vote:

AYES:

COUNCIL MEMBERS - Hansen, Katzakian, Mounce, and

Mayor Johnson

NOES:

COUNCIL MEMBERS - None

ABSENT:

COUNCIL MEMBERS - Nakanishi

ABSTAIN:

COUNCIL MEMBERS - None

RANDI JOHL City Clerk

## **RESUME OF**

# MAURY J. BLALOCK

## **QUALIFICATIONS**

Over 40 years of broad based Electrical Engineering and Management experience with demonstrated achievements in project engineering, construction, and management as well as organization development and management, strategic planning, and financial analysis. A Registered Professional Engineer in the State of Florida.

# **WORK HISTORY**

1987 - Present BLALOCK AND ASSOCIATES, INC.

President and founder of Blalock and Associates, Inc., an engineering consulting business incorporated in the State of Florida - 1988.

Successfully managed and expanded an engineering consulting business engaging in applied electrical engineering consulting; heat loss and/or energy studies; utility rate studies and consultation; utility (gas and electric) avoided cost and marginal cost studies and analyses; utility (gas and electric) cost of service and load forecast studies and analyses; utility (gas and electric) conservation and DSM (Demand Side Management) program development; electric service quality studies and analyses; organization studies and analyses associated with public and private businesses; installation and operation of electrical/mechanical systems for residential, commercial, and industrial establishments; AM/FM/GIS development and implementation; FERC/NERC/ERCOT Transmission System Operator compliance evaluation/documentation/program development; and, providing management and financial advice and consultation, project financing and development, and computer hardware/software systems and services.

# 1966 • 1987 TAMPA ELECTRIC COMPANY

Manager, Conservation and Load Management.

Successfully managed the engineering, vender selection, system implementation, and field installation of all conservation and load management related equipment.

Developed all Direct Load Control Programs and all the related Public Service Commission filings including cost-effectiveness studies from the inception of these programs in 1980 through their maturity in 1987. By the end of 1987, 50,000 customers were under direct control either through VHF radio or bidirectional powerline carrier.

Developed a Direct Load Control Manual which encompassed all aspects of the programs including construction standards, engineering standards, customer solicitation, departmental integration, cost accounting, control system configuration and testing, control strategy development and implementation, etc.

Directed all marketing efforts associated with the Direct Load Control Programs.

Successfully managed the integration of the Load Control System (VHF radio and Bi-directional PLC) into the Tampa Electric Company SCADA and System Generation and Transmission Dispatch Operations.

Aided in the development of all Energy Conservation Programs from their inception in 1980 through their maturity in 1985.

Senior Engineer, System Distribution Engineering Design and Planning

Successfully staffed and managed a new corporate level engineering department with responsibility for distribution system expansion planning, distribution construction design standards, and distribution equipment purchasing specifications.

Developed a Transformer Load Management System encompassing all 80,000 distribution transformers and all 400,000 customers.

Developed a Small Area Load Forecasting System and integrated it with the Transformer Load Management System and they became the primary Distribution System Planning Tools.

Developed a Distribution Work Order Automation System which used units of property (distribution system components) and labor units (personnel) to generate construction work orders and capital expansion cost estimates from Distribution construction Design Standards.

Developed a complete Distribution Construction Design Standards Book encompassing both URD and Overhead construction, and developed a Distribution Engineering Manual which encompassed all aspects of system design including fuse coordination, power factor correction, transformer configurations, conductor sizing, etc.

# Division Engineer, Polk County Division

Management and budgetary responsibilities for the Field Distribution Engineering Section, Division Distribution Dispatch Center, Division Metering Section, and Division Storeroom.

Developed training courses in Distribution System Dispatching and Clearance Techniques, Distribution Substation Switching Procedures, Distribution System Protection Coordination (fuse and relaying), and Distribution Safety Procedures.

# Senior Engineer, System Generation and Transmission Planning

Direct responsibility for the 20-year System Generation Expansion Plan encompassing three generating plants and 3000 MW of generation capacity.

Direct responsibility for the 20-year System Transmission and Substation Expansion Plan encompassing fifty **69** KV circuits, six 138 KV circuits, twelve 230 KV circuits and eighteen transmission substations.

Developed a computerized Transmission System Load Flow Program which became the primary planning and operating tool for the company.

Developed a Distribution Network Load Flow Program which became the primary planning and operating tool for the downtown network system.

## Engineer, Substation Operation Department

Direct responsibility for the panel wiring and installation and checkout of all relaying and controls in all distribution and transmission substations during six years of the fastest expansion of these facilities in company history.

Designed and supervised construction of a vacuum drying system for substation transformer cores and switchgear.

Developed checkout equipment and procedures to facilitate fast and accurate checkout of all substation relaying and controls.

Developed test equipment for testing overcurrent relays, differential current relays, distance relays and transfer trip relaying.

# **EDUCATION**

BACHELOR OF SCIENCE - ELECTRICAL ENGINEERING, University of Florida - 1966. REGISTERED ELECTRICAL ENGINEER, State of Florida - 1972. Graduate of the General Electric Protective Relay Course. Graduate of the Public Utility Executive Course, Georgia Tech.

## **SERVICE**

Served on the Transmission and Generation Planning Committee of the Edison Electric Institute.

Served on the Overhead and Underground Distribution Committee of the Southeastern Electric Exchange.

Served on the Load Management Committee (first Committee Chairman – 1982) of the Florida Utilities Coordinating Group.

Served as an Industry Advisor on three major EPRI projects.

## <u>MEMBERSHIPS</u>

The Institute of Electrical and Electronics Engineers – IEEE

Past member of the Florida Coordinating Group – FCG